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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/061,564	10/26/2001	Michael S. Foster	030048030US	2784
25096	7590	09/13/2005	EXAMINER	
PERKINS COIE LLP			FOX, JAMAL A	
PATENT-SEA			ART UNIT	
P.O. BOX 1247			PAPER NUMBER	
SEATTLE, WA 98111-1247			2664	

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/061,564

Applicant(s)

FOSTER ET AL.

Examiner

Jamal A. Fox

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-17, 19-29, 31-42 and 44-46 is/are rejected.
- 7) ☒ Claim(s) 5, 18, 30 and 43 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 May 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/19/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 4, 6, 8, 10-13, 16, 17, 19, 21, 23-25, 27, 29, 31, 33, 35-38, 41, 42 and 45 are rejected under 35 U.S.C. 102(e) as being anticipated by Banks et al. (U.S. Patent No. 6,731,646).

Referring to claim 1 Banks et al. discloses a method in a switch for multicasting data whose delivery is not guaranteed, the method comprising:

receiving (received, col. 13 lines 28-34) data to be multicasted (multicast, col. 10 lines 25-30 and col. 12 lines 40-45);

storing the received data in a buffer (buffer, col. 13 lines 30-35);

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identifying destination ports (destination port, col. 17 lines 49-56 and col. 18 lines 40-45) through which the received data is to be transmitted; and

repeating determining the destination ports (destination port, col. 17 lines 49-56 and col. 18 lines 40-45) that are currently available and through which the data has not already been transmitted and transmitting the data through the determined destination ports (destination port, col. 17 lines 49-56 and col. 18 lines 40-45) until the data has been transmitted through all the destination ports (destination port, col. 17 lines 49-56 and col. 18 lines 40-45) or until the data has timed out (timeout, col. 18 lines 45-50) at the switch.

Referring to claim 4, Banks et al. discloses the method of claim 1 wherein the data indicates a Fibre Channel class 3 (class 3, col. 4 lines 1-5) data.

Referring to claim 6, Banks et al. discloses the method of claim 1 wherein the switch is Fibre Channel (Fibre Channel, col. 3 line 65-col. 4 line 8) compatible.

Referring to claim 8, Banks et al. discloses the method of claim 1 wherein the identifying of destination ports includes using a virtual (virtual, col. 10 lines 14-34) address and a label table (tables, col. 10 lines 14-34) that maps virtual addresses to destination (destination, col. 10 lines 14-34) ports.

Referring to claim 10, Banks et al. discloses a routing device that receives (received, col. 13 lines 28-34) a communication to be multicasted (multicast, col. 10 lines 25-30 and col. 12 lines 40-45) to destinations, that stores the communication in a buffer (buffer, col. 13 lines 30-35), that identifies destination ports (destination port, col. 17 lines 49-56 and col. 18 lines 40-45) through which

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the received communication is to be transmitted to the destinations, and that transmits the communication to the identified destination ports (destination port, col. 17 lines 49-56 and col. 18 lines 40-45) as the destination ports (destination port, col. 17 lines 49-56 and col. 18 lines 40-45) become available until the communication has been transmitted through all the destination ports (destination port, col. 17 lines 49-56 and col. 18 lines 40-45).

Referring to claim 11, Banks et al. discloses the routing device of claim 10 wherein the transmitting of the communication to the identified destination ports (destination port, col. 17 lines 49-56 and col. 18 lines 40-45) as the destination ports (destination port, col. 17 lines 49-56 and col. 18 lines 40-45) become available continues until a criterion is satisfied.

Referring to claim 12, Banks et al. discloses the routing device of claim 11 wherein the criterion is a time out (timeout, col. 18 lines 45-50).

Referring to claim 13, Banks et al. discloses the routing device of claim 11 wherein the criterion is the buffer (buffer, col. 13 lines 30-35) is needed to store another communication.

Referring to claim 16, Banks et al. discloses the routing device of claim 10 wherein the communication indicates a Fibre Channel class 3 (class 3, col. 4 lines 1-5) communication.

Referring to claim 17, Banks et al. discloses the routing device of claim 10 wherein the routing device is Fibre Channel (Fibre Channel, col. 3 line 65-col. 4 line 8) compatible.

Referring to claim 19, Banks et al. discloses the routing device of claim 10 wherein the routing device is a switch (Fig. 1 and col. 2 lines 11-22).

Referring to claim 21, Banks et al. discloses the routing device of claim 10 wherein the communication includes a virtual (virtual, col. 10 lines 14-34) address and the routing device includes a label table (tables, col. 10 lines 14-34) that maps the virtual (virtual, col. 10 lines 14-34) address to destination (destination, col. 10 lines 14-34) ports.

Referring to claim 23, Banks et al. discloses a method in a routing device for multicasting (multicast, col. 10 lines 25-30 and col. 12 lines 40-45) a communication, the method comprising:

receiving (received, col. 13 lines 28-34) the communication; and
transmitting the received communications through destination ports (destination port, col. 17 lines 49-56 and col. 18 lines 40-45) of the routing device as they become available until a criteria indicates to stop transmitting the communications.

Referring to claim 24, Banks et al. discloses the method of claim 23 wherein the transmitting includes determining the destination ports (destination port, col. 17 lines 49-56 and col. 18 lines 40-45) that are currently available through which the communication has not already been transmitted and transmitting the communication through the determined destination ports (destination port, col. 17 lines 49-56 and col. 18 lines 40-45).

Referring to claim 25, Banks et al. discloses the method of claim 23 wherein the criteria is a time out (timeout, col. 18 lines 45-50).

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Referring to claim 27, Banks et al. discloses the method of claim 23 including storing the communication in a buffer (buffer, col. 13 lines 30-35).

Referring to claim 29, Banks et al. discloses the method of claim 23 wherein the communication indicates a Fibre Channel class 3 (class 3, col. 4 lines 1-5) communication.

Referring to claim 31, Banks et al. discloses the method of claim 23 wherein the routing device is Fibre Channel (Fibre Channel, col. 3 line 65-col. 4 line 8) compatible.

Referring to claim 33, Banks et al. discloses the method of claim 23 including identifying destination ports using a virtual (virtual, col. 10 lines 14-34) address and a label table (tables, col. 10 lines 14-34) that maps virtual (virtual, col. 10 lines 14-34) addresses to destination (destination, col. 10 lines 14-34) ports.

Referring to claim 35, Banks et al. discloses a routing device comprising:

- means for receiving (received, col. 13 lines 28-34) a communication to be multicasted (multicast, col. 10 lines 25-30 and col. 12 lines 40-45) to destinations;
- means for storing the communication in a buffer (buffer, col. 13 lines 30-35);
- means for identifying destination ports (destination port numbers, col. 17 lines 49-56 and col. 18 lines 40-45) through which the received communication is to be transmitted to the destinations; and

means for transmitting (transmitter, col. 17 lines 49-67 and col. 18 lines 41-62) the communication to the identified destination ports as the destination ports become available until a criterion has been satisfied.

Referring to claim 36, Banks et al. discloses the routing device of claim 35 wherein the criterion is transmitting of the communications to all of the identified destination ports (destination port, col. 17 lines 49-56 and col. 18 lines 40-45).

Referring to claim 37, Banks et al. discloses the routing device of claim 35 wherein the criterion is a time out (timeout, col. 18 lines 45-50).

Referring to claim 38, Banks et al. discloses the routing device of claim 35 wherein the criterion is the buffer (buffer, col. 13 lines 30-35) is needed to store another communication.

Referring to claim 41, Banks et al. discloses the routing device of claim 35 wherein the communication indicates a Fibre Channel class 3 (class 3, col. 4 lines 1-5) communication.

Referring to claim 42, Banks et al. discloses the routing device of claim 35 wherein the routing device is Fibre Channel (Fibre Channel, col. 3 line 65-col. 4 line 8) compatible.

Referring to claim 45, Banks et al. discloses the routing device of claim 35 wherein the communication includes a virtual (virtual, col. 10 lines 14-34) address and the routing device includes means (tables, col. 10 lines 14-34) for mapping the virtual (virtual, col. 10 lines 14-34) address to destination (destination, col. 10 lines 14-34) ports.

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3. Claims 1-4, 6, 7, 9, 10, 14-17, 20, 22, 23, 26, 28, 29, 31, 32, 34, 35, 39, 41, 42 and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Anderson et al. (U.S. Patent No. 6,597,691).

Referring to claim 1 Anderson et al. discloses a method in a switch for multicasting (multicast, col. 3 lines 40-45 and col. 9 lines 55-67) data whose delivery is not guaranteed, the method comprising:

receiving data to be multicasted (multicast, col. 3 lines 40-45 and col. 9 lines 55-67);

storing the received data in a buffer (receive buffer 154, col. 8 lines 20-29; receive buffer 172, col. 8 lines 55-65, col. 9 lines 1-7 and receive buffer 182, col. 9 lines 8-15);

identifying destination (destination, col. 5 lines 15-20, col. 6 lines 20-25, col. 6 lines 45-50, col. 9 lines 60-67, col. 11 lines 10-20, col. 12 lines 5-30, col. 13 lines 35-50, col. 14 lines 1-15, col. 15 lines 1-35, col. 16 lines 20-25 and col. 17 lines 15-16) ports through which the received data is to be transmitted; and

repeating determining the destination (destination, col. 5 lines 15-20, col. 6 lines 20-25, col. 6 lines 45-50, col. 9 lines 60-67, col. 11 lines 10-20, col. 12 lines 5-30, col. 13 lines 35-50, col. 14 lines 1-15, col. 15 lines 1-35, col. 16 lines 20-25 and col. 17 lines 15-16) ports that are currently available and through which the data has not already been transmitted and transmitting the data through the determined destination (destination, col. 5 lines 15-20, col. 6 lines 20-25, col. 6 lines 45-50, col. 9 lines 60-67, col. 11 lines 10-20, col. 12 lines 5-30, col. 13 lines 35-50, col. 14 lines 1-15, col. 15 lines 1-35, col. 16 lines 20-25 and col. 17 lines

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15-16) ports until the data has been transmitted through all the destination (destination, col. 5 lines 15-20, col. 6 lines 20-25, col. 6 lines 45-50, col. 9 lines 60-67, col. 11 lines 10-20, col. 12 lines 5-30, col. 13 lines 35-50, col. 14 lines 1-15, col. 15 lines 1-35, col. 16 lines 20-25 and col. 17 lines 15-16) ports or until the data has timed out at the switch.

Referring to claim 2, Anderson et al. discloses the method of claim 1 wherein each port (port, Figures 15 and 18) of the switch has its own buffer (buffer, Figures 15 and 18).

Referring to claim 3, Anderson et al. discloses the method of claim 1 wherein the data indicates that the data is to be multicasted (multicast, col. 9 lines 57-67) without acknowledgement.

Referring to claim 4, Anderson et al. discloses the method of claim 1 wherein the data indicates a Fibre Channel class 3 (class 3, col. 1 lines 55-60) data.

Referring to claim 6, Anderson et al. discloses the method of claim 1 wherein the switch is Fibre Channel (Fibre Channel, col. 1 lines 51-55) compatible.

Referring to claim 7, Anderson et al. discloses the method of claim 1 wherein the switch is an interconnect (interconnect, col. 3 lines 30-35) fabric module.

Referring to claim 9, Anderson et al. discloses the method of claim 1 including when it is determined that a destination (destination, col. 5 lines 15-20

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and col. 15 lines 10-34) port is not available, determining whether an equivalent port is available.

Referring to claim 10, Anderson et al. discloses a routing device that receives a communication to be multicasted (multicast, col. 3 lines 40-45 and col. 9 lines 55-67) to destinations, that stores the communication in a buffer (receive buffer 154, col. 8 lines 20-29; receive buffer 172, col. 8 lines 55-65, col. 9 lines 1-7 and receive buffer 182, col. 9 lines 8-15), that identifies destination (destination, col. 5 lines 15-20, col. 6 lines 20-25, col. 6 lines 45-50, col. 9 lines 60-67, col. 11 lines 10-20, col. 12 lines 5-30, col. 13 lines 35-50, col. 14 lines 1-15, col. 15 lines 1-35, col. 16 lines 20-25 and col. 17 lines 15-16) ports through which the received communication is to be transmitted to the destinations, and that transmits the communication to the identified destination (destination, col. 5 lines 15-20, col. 6 lines 20-25, col. 6 lines 45-50, col. 9 lines 60-67, col. 11 lines 10-20, col. 12 lines 5-30, col. 13 lines 35-50, col. 14 lines 1-15, col. 15 lines 1-35, col. 16 lines 20-25, and col. 17 lines 15-16) ports as the destination ports become available until the communication has been transmitted through all the destination (destination, col. 5 lines 15-20, col. 6 lines 20-25, col. 6 lines 45-50, col. 9 lines 60-67, col. 11 lines 10-20, col. 12 lines 5-30, col. 13 lines 35-50, col. 14 lines 1-15, col. 15 lines 1-35, col. 16 lines 20-25 and col. 17 lines 15-16) ports.

Referring to claim 14, Anderson et al. discloses the routing device of claim 10 wherein the communication is received via a port (port, Figures 15 and 18) and each port (port, Figures 15 and 18) of the routing device has its own buffer (buffer, Figures 15 and 18).

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Referring to claim 15, Anderson et al. discloses the routing device of claim 10 wherein the communication indicates that the communication is to be multicasted (multicast, col. 9 lines 57-67) without acknowledgement.

Referring to claim 16, Anderson et al. discloses the routing device of claim 10 wherein the communication indicates a Fibre Channel class 3 (class 3, col. 1 lines 55-60) communication.

Referring to claim 17, Anderson et al. discloses the routing device of claim 10 wherein the routing device is Fibre Channel (Fibre Channel, col. 1 lines 51-55) compatible.

Referring to claim 20, Anderson et al. discloses the routing device of claim 10 wherein the routing device is an interconnect (interconnect, col. 3 lines 30-35) fabric module.

Referring to claim 22, Anderson et al. discloses the routing device of claim 10 that identifies an equivalent destination port (destination, col. 5 lines 15-20 and col. 15 lines 10-34) when the identified destination port (destination, col. 5 lines 15-20 and col. 15 lines 10-34) is not available.

Referring to claim 23, Anderson et al. discloses a method in a routing device for multicasting (multicast, col. 3 lines 40-45 and col. 9 lines 55-67) a communication, the method comprising:

receiving (receiving, col. 9 lines 1-7) the communication; and

transmitting the received communications through destination (destination, col. 5 lines 15-20, col. 6 lines 20-25, col. 6 lines 45-50, col. 9 lines 60-67, col. 11 lines 10-20, col. 12 lines 5-30, col. 13 lines 35-50, col. 14 lines 1-15, col. 15 lines

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1-35, col. 16 lines 20-25 and col. 17 lines 15-16) ports of the routing device as they become available until a criteria indicates to stop transmitting the communications.

Referring to claim 26, Anderson et al. discloses the method of claim 23 wherein the communication is not guaranteed to be delivered (route, col. 9 lines 55-67) to all destinations (destination, col. 9 lines 60-67).

Referring to claim 28, Anderson et al. discloses the method of claim 23 wherein the communication indicates that the communication is to be multicasted (multicast, col. 9 lines 57-67) without acknowledgement.

Referring to claim 29, Anderson et al. discloses the method of claim 23 wherein the communication indicates a Fibre Channel class 3 (class 3, col. 1 lines 55-60) communication.

Referring to claim 31, Anderson et al. discloses the method of claim 23 wherein the routing device is Fibre Channel (Fibre Channel, col. 1 lines 51-55) compatible.

Referring to claim 32, Anderson et al. discloses the method of claim 23 wherein the routing device is an interconnect (interconnect, col. 3 lines 30-35) fabric module.

Referring to claim 34, Anderson et al. discloses the method of claim 23 including determining whether a destination (destination, col. 5 lines 15-20 and col. 15 lines 10-34) port is available and when it is determined that a destination (destination, col. 5 lines 15-20 and col. 15 lines 10-34) port is not available, determining whether an equivalent port is available.

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Referring to claim 35, Anderson et al. discloses a routing device comprising:

means for receiving (receiving, col. 9 lines 1-7) a communication to be multicasted (multicast, col. 3 lines 40-45 and col. 9 lines 55-67) to destinations;

means for storing the communication in a buffer (receive buffer 154, col. 8 lines 20-29; receive buffer 172, col. 8 lines 55-65, col. 9 lines 1-7 and receive buffer 182, col. 9 lines 8-15);

means for identifying destination (destination, col. 5 lines 15-20, col. 6 lines 20-25, col. 6 lines 45-50, col. 9 lines 60-67, col. 11 lines 10-20, col. 12 lines 5-30, col. 13 lines 35-50, col. 14 lines 1-15, col. 15 lines 1-35, col. 16 lines 20-25 and col. 17 lines 15-16) ports through which the received communication is to be transmitted to the destinations (destination, col. 5 lines 15-20, col. 6 lines 20-25, col. 6 lines 45-50, col. 9 lines 60-67, col. 11 lines 10-20, col. 12 lines 5-30, col. 13 lines 35-50, col. 14 lines 1-15, col. 15 lines 1-35, col. 16 lines 20-25 and col. 17 lines 15-16); and

means for transmitting the communication to the identified destination (destination, col. 5 lines 15-20, col. 6 lines 20-25, col. 6 lines 45-50, col. 9 lines 60-67, col. 11 lines 10-20, col. 12 lines 5-30, col. 13 lines 35-50, col. 14 lines 1-15, col. 15 lines 1-35, col. 16 lines 20-25 and col. 17 lines 15-16) ports as the destination ports become available until a criterion has been satisfied.

Referring to claim 39, Anderson et al. discloses the routing device of claim 35 wherein the communication is received via a port (port, Figures 15 and 18)

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and each port (port, Figures 15 and 18) of the routing device has its own buffer (buffer, Figures 15 and 18).

Referring to claim 41, Anderson et al. discloses the routing device of claim 35 wherein the communication indicates a Fibre Channel class 3 (class 3, col. 1 lines 55-60) communication.

Referring to claim 42, Anderson et al. discloses the routing device of claim 35 wherein the routing device is Fibre Channel (Fibre Channel, col. 1 lines 51-55) compatible,

Referring to claim 44, Anderson et al. discloses the routing device of claim 35 wherein the routing device is an interconnect (interconnect, col. 3 lines 30-35) fabric module.

4. Claims 1, 3, 4, 6-10, 15, 19-23, 28, 32-35, 40 and 44-46 are rejected under 35 U.S.C. 102(e) as being anticipated by George (U.S. Patent No. 6,697,359).

Referring to claim 1, George discloses a method in a switch for multicasting (multicast, col. 2 lines 52-58, col. 12 lines 46-59 and col. 14 lines 1-8) data whose delivery is not guaranteed, the method comprising:

receiving data to be multicasted (multicast, col. 2 lines 52-58, col. 12 lines 46-59 and col. 14 lines 1-8);

storing the received data in a buffer (Fig. 1 ref. sign 52, Fig. 10 ref. sign 115 and respective portions of the spec.);

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identifying destination ports (destination port, col. 11 lines 25-30, col. 17 lines 22-67 and col. 18 lines 5-10; destination, col. 12 lines 30-37), through which the received data is to be transmitted; and

repeating determining the destination ports (destination port, col. 11 lines 25-30, col. 17 lines 22-67 and col. 18 lines 5-10; destination, col. 12 lines 30-37) that are currently available and through which the data has not already been transmitted and transmitting the data through the determined destination ports (destination port, col. 11 lines 25-30, col. 17 lines 22-67 and col. 18 lines 5-10; destination, col. 12 lines 30-37) until the data has been transmitted through all the destination ports (destination port, col. 11 lines 25-30, col. 17 lines 22-67 and col. 18 lines 5-10; destination, col. 12 lines 30-37) or until the data has timed out at the switch.

Referring to claim 3, George discloses the method of claim 1 wherein the data indicates that the data is to be multicasted without acknowledgement (unacknowledged, col. 3 line 63-col. 4 line 5).

Referring to claim 4, George discloses the method of claim 1 wherein the data indicates a Fibre Channel class 3 (class 3, col. 3 lines 63-67) data.

Referring to claim 6, George discloses the method of claim 1 wherein the switch is Fibre Channel (Fibre Channel, col. 2 lines 28-32) compatible.

Referring to claim 7, George discloses the method of claim 1 wherein the switch is an interconnect (interconnecting, col. 3 lines 5-10) fabric module.

Referring to claim 8, George discloses the method of claim 1 wherein the identifying of destination ports includes using a virtual (virtual, col. 18 lines 5-23)

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address and a label table (tables, col. 18 lines 5-23) that maps virtual addresses to destination ports.

Referring to claim 9, George discloses the method of claim 1 including when it is determined that a destination port (destination port, col. 17 lines 25-39, col. 17 lines 55-65 and col. 18 lines 5-15) is not available, determining whether an equivalent port is available.

Referring to claim 10, George discloses a routing device that receives a communication to be multicasted (multicast, col. 2 lines 52-58, col. 12 lines 46-59 and col. 14 lines 1-8) to destinations, that stores the communication in a buffer (Fig. 1 ref. sign 52, Fig. 10 ref. sign 115 and respective portions of the spec.), that identifies destination ports (destination port, col. 11 lines 25-30, col. 17 lines 22-67 and col. 18 lines 5-10; destination, col. 12 lines 30-37) through which the received communication is to be transmitted to the destinations, and that transmits the communication to the identified destination ports (destination port, col. 11 lines 25-30, col. 17 lines 22-67 and col. 18 lines 5-10; destination, col. 12 lines 30-37) as the destination ports (destination port, col. 11 lines 25-30, col. 17 lines 22-67 and col. 18 lines 5-10; destination, col. 12 lines 30-37) become available until the communication has been transmitted through all the destination ports (destination port, col. 11 lines 25-30, col. 17 lines 22-67 and col. 18 lines 5-10; destination, col. 12 lines 30-37).

Referring to claim 15, George discloses the routing device of claim 10 wherein the communication indicates that the communication is to be multicasted without acknowledgement (unacknowledged, col. 3 line 63-col. 4 line 5).

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Referring to claim 19, George discloses the routing device of claim 10 wherein the routing device is a switch (Fig. 10 and respective portions of the spec.).

Referring to claim 20, George discloses the routing device of claim 10 wherein the routing device is an interconnect (interconnecting, col. 3 lines 5-10) fabric module.

Referring to claim 21, George discloses the routing device of claim 10 wherein the communication includes a virtual (virtual, col. 18 lines 5-23) address and the routing device includes a label table (tables, col. 18 lines 5-23) that maps the virtual (virtual, col. 18 lines 5-23) address to destination ports.

Referring to claim 22, George discloses the routing device of claim 10 that identifies an equivalent destination port (destination port, col. 17 lines 25-39, col. 17 lines 55-65 and col. 18 lines 5-15) when the identified destination port (destination port, col. 17 lines 25-39, col. 17 lines 55-65 and col. 18 lines 5-15) is not available.

Referring to claim 23, George discloses a method in a routing device for multicasting a communication, the method comprising:

receiving (receives, col. 12 lines 30-37) the communication; and

transmitting the received communications through destination (destination port, col. 11 lines 25-30, col. 17 lines 22-67 and col. 18 lines 5-10; destination, col. 12 lines 30-37) ports of the routing device as they become available until a criteria indicates to stop transmitting the communications.

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Referring to claim 28, George discloses the method of claim 23 wherein the communication indicates that the communication is to be multicasted without acknowledgement (unacknowledged, col. 3 line 63-col. 4 line 5).

Referring to claim 32, George discloses the method of claim 23 wherein the routing device is an interconnect (interconnecting, col. 3 lines 5-10) fabric module.

Referring to claim 33, George discloses the method of claim 23 including identifying destination ports using a virtual (virtual, col. 18 lines 5-23) address and a label table (tables, col. 18 lines 5-23) that maps virtual (virtual, col. 18 lines 5-23) address to destination ports.

Referring to claim 34, George discloses the method of claim 23 including determining whether a destination port (destination port, col. 17 lines 25-39, col. 17 lines 55-65 and col. 18 lines 5-15) is available and when it is determined that a destination port (destination port, col. 17 lines 25-39, col. 17 lines 55-65 and col. 18 lines 5-15) is not available, determining whether an equivalent port is available.

Referring to claim 35, George discloses a routing device comprising:

means for receiving (receives, col. 12 lines 30-37) a communication to be multicasted (multicast, col. 2 lines 52-58, col. 12 lines 46-59 and col. 14 lines 1-8) to destinations;

means for storing the communication in a buffer (Fig. 1 ref. sign 52, Fig. 10 ref. sign 115 and respective portions of the spec.);

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means for identifying destination (destination port, col. 11 lines 25-30, col. 17 lines 22-67 and col. 18 lines 5-10; destination, col. 12 lines 30-37) ports through which the received communication is to be transmitted to the destinations; and

means for transmitting the communication to the identified destination (destination port, col. 11 lines 25-30, col. 17 lines 22-67 and col. 18 lines 5-10; destination, col. 12 lines 30-37) ports as the destination ports become available until a criterion has been satisfied.

Referring to claim 40, George discloses the routing device of claim 35 wherein the communication indicates that the communication is to be multicasted without acknowledgement (unacknowledged, col. 3 line 63-col. 4 line 5).

Referring to claim 44, George discloses the routing device of claim 35 wherein the routing device is an interconnect (interconnecting, col. 3 lines 5-10) fabric module.

Referring to claim 45, George discloses the routing device of claim 35 wherein the communication includes a virtual (virtual, col. 18 lines 5-23) address and the routing device includes means (tables, col. 18 lines 5-23) for mapping the virtual (virtual, col. 18 lines 5-23) address to destination ports.

Referring to claim 46, George discloses the routing device of claim 35 includes means for identifying an equivalent destination port (destination port, col. 17 lines 25-39, col. 17 lines 55-65 and col. 18 lines 5-15) when the identified destination port (destination port, col. 17 lines 25-39, col. 17 lines 55-65 and col. 18 lines 5-15) is not available.

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Allowable Subject Matter

5. Claims 5, 18, 30 and 43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(571) 273-8300, (for formal communications intended for entry)

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamal A. Fox whose telephone number is (571) 272-3143. The examiner can normally be reached on Monday-Friday 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to 2600 Customer Service whose telephone number is (571) 272-2600.

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Jamal A. Fox

Jamal A. Fox

Wellington Chin

WELLINGTON CHIN
REVISORY PATENT EXAMINER